Claims

1. An assembly tool for assembling a sealing ring (3) in an annular groove (4, 9) of a machine part (1, 7), in particular of a valve plate (7), characterized in that the assembly tool (10, 23) includes a pneumatic piston-cylinder unit (11, 12, 26, 27) for uniform press-fitting of the sealing ring (3) into the annular groove (4, 9).

2. The assembly tool of claim 1, characterized in that the pneumatic piston-cylinder unit has a work piston (11, 26) with an axially protruding, annular assembly portion (15, 28), which by subjecting the piston-cylinder unit to compressed air press-fits a sealing ring (3) uniformly into the annular groove (4, 9).

3. The assembly tool of one of the foregoing claims, characterized in that the annular assembly portion (15, 28) of the work piston (11, 26) is provided, on the radially inner side of its free end, with an encompassing recess (16, 29) for guiding the sealing ring (3), and the flanks of the recess (16, 29) are chamfered such that upon an axial displacement of the work piston (11, 26), they compress the sealing ring (3) on one side and press it into the annular groove (4, 9) on the other.

4. The assembly tool of claim 2 or 3, in particular for use with a machine part in which an annular groove (3) located on the outside is disposed on a radially outward-protruding sealing portion (2, 8), characterized in that the work piston (11, 26) of the assembly tool (10, 23) can be braced axially on an axial side of the sealing portion (2) of the machine part (1) or on the sealing ring (3); and that the

assembly tool (10, 23) has at least one flange part (13, 14), with a support portion (14, 25) that can be axially braced on the other axial side of the sealing portion (8) or on the sealing ring (3), and a flange portion (17), which for sealing assembly can be connected solidly to a corresponding flange portion (18) of the cylindrical part (12, 27).

5. The assembly tool of claim 4, characterized in that a clamp for separable connection of the flange portions (17, 18) of the cylindrical part (12, 27) and flange part (13, 24) is provided.

6. The assembly tool of claim 5, characterized in that the applicable flange portion (17, 18) of the cylindrical part (12, 27) and flange part (13, 24) is embodied in the form of a standard flange of the kind known for connecting valves and pipes, and the clamp is embodied in the form of an associated known standard clamp.

7. The assembly tool of one of the foregoing claims, characterized in that the flange part (13, 24) is embodied annularly around a radially inner recess (21).

8. The assembly tool of one of the foregoing claims, characterized in that the cylindrical part (12) and the work piston (11) are embodied annularly around an inner recess (19).

9. The assembly tool of one of claims 1-7, characterized in that the cylindrical part (27) and the work piston (26) are embodied as cup-shaped.

10. A sealing ring for assembly in an annular groove (4, 9) of a radially outward-protruding sealing portion (2,

8) of a machine part (1), in particular of a valve plate (7), by means of an assembly tool (10, 23) of one of the foregoing claims, characterized in that the sealing ring (3) has two encompassing protrusions (6), which are disposed parallel to one another such that they form a recess (5) of V-shaped cross section between them.

11. A method for assembling a sealing ring (3) in an outer annular groove (4, 9) of a machine part (1, 7), in particular of a valve plate (7), using an assembly tool (10, 23) of one of the foregoing claims, characterized by the following method steps:

- the sealing ring (3) is premounted by hand on the machine part (1, 7) so that it rests on the outside of the annular groove (4, 9);

- a pneumatic piston-cylinder unit (11, 12, 26, 27) is placed and firmly retained on one axial side of the machine part (1, 7) on this part or on the sealing ring (3);

- a flange part (13, 24) is placed on the other axial side of the machine part (1, 7) on that part or on the sealing ring (3) and solidly connected to the piston-cylinder unit (11, 12, 26, 27) by means of a clamp;

- the piston-cylinder unit (11, 12, 26, 27) is subjected to compressed air, so that the work piston (11, 26), with its axially protruding, annular assembly portion (15, 28), press-fits the sealing ring (3) uniformly into the annular groove (4, 9);

- the assembly tool (11, 23) is removed from the machine part (1, 7), preferably after a pressure relief of

the piston-cylinder unit (11, 12, 26, 27) and after release of the clamp.